## WHAT IS CLAIMED IS:

1     1.     A method for updating a program in a data processing system comprising the

2     steps of:

3         requesting a trusted platform module ("TPM") to perform a signature verification

4     of an update to the program;

5         the TPM performing the signature verification of the update to the program;

6         if the signature verification of the update to the program is successful, unlocking

7     a memory unit storing the program; and

8         modifying the program with the update to the program in response to the

9     unlocking of the memory unit storing the program.

1     2.     The method as recited in claim 1, further comprising the step of:

2         locking the memory unit after the modifying step.

1     3.     The method as recited in claim 2, wherein the locking step is performed by the

2     TPM.

1 4. A computer program product adaptable for storage on a computer readable

2 medium and operable for updating a BIOS stored in a flash memory in a data processing

3 system, comprising:

4   a BIOS update application program receiving an updated BIOS image;

5   the BIOS update application requesting a TPM to perform a signature verification

6 of the updated BIOS image;

7   a TPM program receiving the request from the BIOS update application to

8 perform the signature verification of the updated BIOS image; and

9   the TPM program performing the signature verification of the updated BIOS

10 image and posting a result of the signature verification of the updated BIOS image to the

11 BIOS update application.

1     5.     The computer program product as recited in claim 4, further comprising:

2           if the result of the signature verification of the updated BIOS image determines

3 that the updated BIOS image is authentic, then the TPM program unlocks the flash

4 memory; and

5           the BIOS update application modifies the BIOS with the updated BIOS image.


1     6.     The computer program product as recited in claim 5, further comprising:

2           programming for locking the flash memory after the BIOS update application

3 modifies the BIOS with the updated BIOS image.


1     7.     The computer program product as recited in claim 6, further comprising:

2           if the result of the signature verification of the updated BIOS image determines

3 that the updated BIOS image is not authentic, then an error message is output.

1     8.     A data processing system having circuitry for updating a BIOS stored in a flash

2     memory in the data processing system, comprising:

3     input circuitry for receiving an updated BIOS image;

4     circuitry for requesting a TPM to perform a signature verification of the updated

5     BIOS image;

6     the TPM performing the signature verification of the updated BIOS image;

7     the TPM unlocking the flash memory if the signature verification of the updated

8     BIOS image determines that the updated BIOS image is authentic; and

9     circuitry for modifying the BIOS with the updated BIOS image.

1     9.     The system as recited in claim 8, further comprising:

2            circuitry for locking the flash memory after the BIOS is modified with the

3  updated BIOS image.


1     10.    The system as recited in claim 8, further comprising:

.2           circuitry for outputting an error if the signature verification of the updated BIOS

3  image determines that the updated BIOS image is not authentic.